REMARKS:	Geologic Formations:	Surface -	Duchesne	River.	Botto	n - Mesaverde	
	Tar sand 1630-1730'						
·18.86 a	ddid tasintino (No File) Bul. 50						
DATE FILED	Prior OGCC						
AND: FEE &			PUBLIC LEA	SE NO.	K	INDIAN	
DRILLING APP	ROVED:						
SPUDDED IN:							
COMPLETED:							
NITIAL PRODU	JCTION:						
GRAVITY A. P.	. 1.						
GOR:							
PRODUCING Z	ONES:						
TOTAL DEPTH	2,222						
WELL ELEVAT	TION: 6,275						
DATE ABANDO	NED: 6-11-42						· · · · · · · · · · · · · · · · · · ·
FIELD OR DIST		Springs 18	: wild			<i>m</i>	
COUNTY:	Uintah			<i>H</i>	PZ	43-047-2	0372
WELL NO.	UNION OIL	XO. # 1			V		
LOCATION:	FT. FROM (N) (S) LINE		FT. FROM (E) (W) LINE.	NE SE	QUARTER - QUART	ER SEC. 21
TWP. R	GE. SEC. OPERATOR		TWP.	RGE.	SEC.	OPERATOR /	
	en e	and the second s	4 5	20E	21	UNION OIL COM	PANY
		*					

UNION OIL COMPANY-Government No. 1

Cottonwood Springs Bow, Uintah County, Utah

43-047-20372

Location: 1,650' from South line and 330' from East line of Sec. 21, T. 4S, R. 20E, S.L.M.

Elevation: 6,275

Spud: April 19, 1942. Abandoned: June 12, 1942

T.D. 2,222 ft.

Casing record: 8-5/8-140 ft. 5-1/2-2,082 ft.

Well log Assembled from Examination of Drill Cuttings by Max L. Krueger

<u>Feet</u>	Formation
0-26	Tan sandy clay and occasional boulders.
26 ⁻ √70	Clay and boulders.
70-105	Hard boulder conglomerate.
105-120	Hard quartz sand.
120-130	Hard sand with limestone boulder fragments.
130-160	Hard boulder conglomerate.
160-200	Sandstone with occasional boulders.
200-215	Pink sandy clay with scattered boulders.
215-225	Gray and white sandstone.
225-245	Gray and maroon clay and sandy silt with a few boulders.
245-275	Gray clay, sandy silt and silty sand.
275-280	Medium grained sandstone.
280-315	Clay, sandy white to tawny
315-355	Clayey silt and sandy silt, maroon to pink to tawny, gypsiferous.
355-365	Clayey sandstone.
365-430	Soft sandy clay decreasing in sandiness downward.
430-435	Sandstone, tan.
435-460	Sandy gray clay.
460-470	Sandstone with some sandy clay and occasional boulders, pyrite
	crystals set in limestone fragments.
470-535	Gypsiferous clay, sandy red and pink.
535-550	Sandstone.
550-565	Sandy clays and sandy silts, calcareous to gypsiferous. Range in color from pink and red to maroon to white, light grey, tans, and tawny colors. The maroon intervals are more clayey and softer while the grey colored sediments are much sandier.
565-575	Sand, tan, fairly hard.
575-620	Variegated clays, silts and sand.
620-640	Sandstone with admixed clays and sandy silts on occasion.
640-665	Tan sandstone and occasional limestone boulders. Some admixed
	sandy silts and clay fragments.
665-675	Ditto with a few more boulders.
675-700	Sandstone and variegated sandstone and silt fragments and a few boulders.

<u>Feet</u>	Formation
700-730	Grey and white, maroon sandy clay and silt.
730-760	Reddish clays and sandy silts and some admixed clayey argillaceous
700 700	material.
760-795	Sandstone with occasional boulders and prominent limestone boulder
	fragments between 790'-and 795'.
795-820	Maroon and grey and cream sandy siltstone and claystone with occasional
:	boulder fragments.
820-870	Vari-colored clays, sandy silts, silty sands containing admixed boulders.
870-900	Sandstone, with admixed vari-colored clays, silts and scattered boulders.
900-915	Clay and silt, very sandy. Maroon, grey, white and cream colored.
915-940	Vari-colored clay and silt, pinkish cast.
940-970	Sandstone with grey and white claystone or siltstone admixed.
970-1015	Sandy claystone or siltstone, vari-colored with limestone boulders.
1015-1055	Sandstone. Some admixed vari-colored sandy clay and occasional
	fragments of crystalline limestone.
1055-1085	Sandstone and vari-colored sandy clay and sandy silt.
1085-1165	Claystone or siltstone, very sandy, occasional limestone fragments.
1165-1205	Sandstone with occasional boulders.
1205-1230	Basal Duchesne River conglomerate. Limestone and quartzite boulders
	set in a sandy matrix. Very hard.
<u>1230</u>	Base Duchesne River formation to Uinta formation.
1230-1250	Vari-colored claystone with occasional limestone boulders.
1250-1275	Sandstone with admixed vari-colored claystone and siltstone.
1275-1290	Sandstone and vari-colored siltstone and claystone.
1290-1345	Sandstone with intercalations of clay and silt. Prominent pyrite
	crystals noted along with scattered boulders.
1345-1383.5	Vari-colored sandy claystone and scattered boulders.
1383.5-1393.5	Vari-colored sandy claystone and siltstone with maroon, drab
	brown and light blue-grey silts and sandy silt, fragments
- 0 0 0 5 - 7 4 0 0	predominating.
1393.5-1400	Vari-colored clays and silts.
1400-1410	Sandstone with admixed vari-colored clays and silts.
1410-1425	Vari-colored clays and sandy silts with very occasional boulders.
1425-1440	Predominantly sandstone with admixed vari-colored clays and sandy
1440 1455	silts. Blue-grey silts predominating. Red, blue, tan and dirty brown clays and silts and sandy silts.
1440-1455	Sandstone with admixed vari-colored clays and silts.
1455-1470 1470-1500	Predominantly vari-colored clays and silts with some admixed
14/0-1500	sandstone.
	First dark grey chert grains appear at 1,490'.
1500-1530	Predominantly sandstone with admixed vari-colored clays and
1300-1330	silts. No cuts.
1530-1585	Vari-colored clays and silts and some blue-grey chert fragments.
1000-1000	First prominent appearance of grey chert material at 1,530!.
	This point also marks the appearance of a few tar coated lime-
	stone grains. The samples give a faint cut in carbon tetrach-
	loride between 1,530' and 1,540'. No cuts from 1,540' to 1,585'.
	10.140 201.1001 1/000 4114 1/010 1 110 0410 11011 1/010 10 1/000 1

<u>Feet</u>	Formation
<u>1585</u> -1630	Sandstone with some admixed chert conglomerate and vari-colored clays. Pyrite grains noticeable. No cut to 1,615' and a very faint cut between 1,615' and 1,630'. At 1,630' the first time that a considerable admixture of tar staineds and grains showed on the ditch.
1630-1730	Tan sand with some tar sand. All samples down to 1,700' showing fair cut. Some vari-colored silt fragments.
1730-1755	Hard grey chert conglomerate and sand.
1755-1800	Grey chert and limestone boulder conglomerate set in a sandy matrix. Faint oil cut 1,755' to 1,770'. Good cut 1,770' to 1,800'.
1800-1850	Sandstone, tar sandstone and scattered boulders. Faint cuts throughout.
1850-1908	Black tar sand and grey chert pebble conglomerate. Cored 38' of tar sand and gas burned in the barrel at 1,885'.
1908-1940	Sandstone and chert pebble conglomerate. All samples gave good cuts so it is probably tar saturated.
1940-1968	Sandstone with some admixed vari-colored clays. Samples give cut throughout.
1968-2035	Conglomerate set in a sandstone matrix and some admixed vari- colored argillaceous material.
2035	Approximate top of the Cretaceous-Mesaverde sands and shales.
2035-2045	Sandstone?
2045-2093	Grey Cretaceous shales, lignitic shales and some thin streaks of coal with shiny lustre. Irregularly bedded.
2093-2218	Mesaverde oil sands, light brown, medium grained, fairly soft, massive. Give excellent cut. No odor.

T.D. 2,222 ft.

Union Oi) NESE 21-45-20E

Gov) + #1

Wintah

Wah

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UNION OIL COMPANY-Government No. 1

Cottonwood Springs Bow, Uintah County, Utah

Location: 1,650' from South line and 330' from East line of Sec. 21, T. 4S, R. 20E, S.L.M.

Elevation: 6,275

Spud: April 19, 1942. Abandoned: June 12, 1942

T.D. 2,222 ft.

Casing record: 8-5/8-140 ft. 5-1/2-2,082 ft.

Well log Assembled from Examination of Drill Cuttings by Max L. Krueger

<u>Feet</u>	For mation
0-26	Tan sandy clay and occasional boulders.
26 → 70	Clay and boulders.
70-105	Hard boulder conglomerate.
105-120	Hard quartz sand.
120-130	Hard sand with limestone boulder fragments.
130-160	Hard boulder conglomerate.
160-200	Sandstone with occasional boulders.
200-215	Pink sandy clay with scattered boulders.
215-225	Gray and white sandstone.
225-245	Gray and maroon clay and sandy silt with a few boulders.
245-275	Gray clay, sandy silt and silty sand.
275-280	Medium grained sandstone.
280-315	Clay, sandy white to tawny
315-355	Clayey silt and sandy silt, maroon to pink to tawny, gypsiferous.
355-365	Clayey sandstone.
365-430	Soft sandy clay decreasing in sandiness downward.
430-435	Sandstone, tan.
435-460	Sandy gray clay.
460-470	Sandstone with some sandy clay and occasional boulders, pyrite crystals set in limestone fragments.
470-535	Gypsiferous clay, sandy red and pink.
535-550	Sandstone.
550 - 565	Sandy clays and sandy silts, calcareous to gypsiferous. Range in color from pink and red to maroon to white, light grey, tans, and tawny colors. The maroon intervals are more clayey and softer while the grey colored sediments are much sandier.
565-575	Sand, tan, fairly hard.
575 - 620	Variegated clays, silts and sand.
620-640	Sandstone with admixed clays and sandy silts on occasion.
640-665	Tan sandstone and occasional limestone boulders. Some admixed sandy silts and clay fragments.
665-675	Ditto with a few more boulders.
675-700	Sandstone and variegated sandstone and silt fragments and a few boulders.

<u>Feet</u> <u>Formation</u>	
700-730 Grey and white, maroon sandy clay and silt.	
730-760 Reddish clays and sandy silts and some admixed clayey argillaceous	
material.	
760-795 Sandstone with occasional boulders and prominent limestone boulder	
fragments between 790'-and 795'.	
795-820 Maroon and grey and cream sandy siltstone and claystone with occasion	na l
boulder fragments.	
820-870 Vari-colored clays, sandy silts, silty sands containing admixed boulde	rs.
870-900 Sandstone, with admixed vari-colored clays, silts and scattered boulde	
900-915 Clay and silt, very sandy. Maroon, grey, white and cream colored.	•
915-940 Vari-colored clay and silt, pinkish cast.	
940-970 Sandstone with grey and white claystone or siltstone admixed.	
970-1015 Sandy claystone or siltstone, vari-colored with limestone boulders.	
1015-1055 Sandstone. Some admixed vari-colored sandy clay and occasional	
fragments of crystalline limestone.	
1055-1085 Sandstone and vari-colored sandy clay and sandy silt.	
1085-1165 Claystone or siltstone, very sandy, occasional limestone fragments.	
1165-1205 Sandstone with occasional boulders.	
1205-1230 Basal Duchesne River conglomerate. Limestone and quartzite boulders	
set in a sandy matrix. Very hard.	
1230 Base Duchesne River formation to Uinta formation.	
1230-1250 Vari-colored claystone with occasional limestone boulders.	
1250-1275 Sandstone with admixed vari-colored claystone and siltstone.	
1275-1290 Sandstone and vari-colored siltstone and claystone.	
1290-1345 Sandstone with intercalations of clay and silt. Prominent pyrite	
crystals noted along with scattered boulders.	
1345-1383.5 Vari-colored sandy claystone and scattered boulders.	
1383.5-1393.5 Vari-colored sandy claystone and siltstone with maroon, drab	
brown and light blue-grey silts and sandy silt, fragments	
predominating.	
1393.5-1400 Vari-colored clays and silts.	
1400-1410 Sandstone with admixed vari-colored clays and silts.	
1410-1425 Vari-colored clays and sandy silts with very occasional boulders.	
1425-1440 Predominantly sandstone with admixed vari-colored clays and sandy	
silts. Blue-grey silts predominating.	
Red, blue, tan and dirty brown clays and silts and sandy silts.	
1455-1470 Sandstone with admixed vari-colored clays and silts.	
1470-1500 Predominantly vari-colored clays and silts with some admixed	
sandstone.	
First dark grey chert grains appear at 1,490'.	
1500-1530 Predominantly sandstone with admixed vari-colored clays and	
silts. No cuts.	
1530-1585 Vari-colored clays and silts and some blue-grey chert fragments.	
First prominent appearance of grey chert material at 1,530!.	
This point also marks the appearance of a few tar coated lime-	
stone grains. The samples give a faint cut in carbon tetrach-	

<u>Feet</u>	Formation
<u>1585</u> -1630	Sandstone with some admixed chert conglomerate and vari-colored clays. Pyrite grains noticeable. No cut to 1,615' and a very faint cut between 1,615' and 1,630'. At 1,630' the first time that a considerable admixture of tar staineds and grains showed on the ditch.
1630-1730	Tan sand with some tar sand. All samples down to 1,700' showing fair cut. Some vari-colored silt fragments.
1730-1755	Hard grey chert conglomerate and sand.
1755-1800	Grey chert and limestone boulder conglomerate set in a sandy matrix. Faint oil cut 1,755' to 1,770'. Good cut 1,770' to 1,800'.
1800-1850	Sandstone, tar sandstone and scattered boulders. Faint cuts throughout.
1850-1908	Black tar sand and grey chert pebble conglomerate. Cored 38' of tar sand and gas burned in the barrel at 1,885'.
1908-1940	Sandstone and chert pebble conglomerate. All samples gave good cuts so it is probably tar saturated.
1940-1968	Sandstone with some admixed vari-colored clays. Samples give cut throughout.
1968-2035	Conglomerate set in a sandstone matrix and some admixed vari- colored argillaceous material.
2035	Approximate top of the Cretaceous-Mesaverde sands and shales.
2035-2045	Sandstone?
2045-2093	Grey Cretaceous shales, lignitic shales and some thin streaks of coal with shiny lustre. Irregularly bedded.
2093-2218	Mesaverde oil sands, light brown, medium grained, fairly soft, massive. Give excellent cut. No odor.

T.D. 2,222 ft.

UNION OIL COMPANY-Government No. 1

Cottonwood Springs Bow, Uintah County, Utah

Location: 1,650' from South line and 330' from East line of Sec. 21 T. 4S, R. 20E, S.L.M. Elevation: 6.275

Elevation: 6,275

Spud: April 19, 1942. Abandoned: June 12, 1942

T.D. 2,222 ft.

Casing record: 8-5/8--140 ft. 5-1/2--2,082 ft.

Well log Assembled from Examination of Drill Cuttings by Max L. Krueger

<u>Feet</u>	<u>Formation</u>
0-26	Tan sandy clay and occasional boulders.
26≒470	Clay and boulders.
70-105	Hard boulder conglomerate.
105-120	Hard quartz sand.
120-130	Hard sand with limestone boulder fragments.
130-160	Hard boulder conglomerate.
160-200	Sandstone with occasional boulders.
200-215	Pink sandy clay with scattered boulders.
215-225	Gray and white sandstone.
225-245	Gray and maroon clay and sandy silt with a few boulders.
245-275	Gray clay, sandy silt and silty sand.
275-280	Medium grained sandstone.
280-315	Clay, sandy white to tawny
315-355	Clayey silt and sandy silt, maroon to pink to tawny, gypsiferous.
355-365	Clayey sandstone.
365-430	Soft sandy clay decreasing in sandiness downward.
430-435	Sandstone, tan.
435~460	Sandy gray clay.
460-470	Sandstone with some sandy clay and occasional boulders, pyrite crystals set in limestone fragments.
470-535	Gypsiferous clay, sandy red and pink.
535-550	Sandstone.
550-565	Sandy clays and sandy silts, calcareous to gypsiferous. Range in color from pink and red to maroon to white, light grey, tans, and tawny colors. The maroon intervals are more clayey and softer while the grey colored sediments are much sandier.
565-575	Sand, tan, fairly hard.
575-620	Variegated clays, silts and sand.
620-640	Sandstone with admixed clays and sandy silts on occasion.
640-665	Tan sandstone and occasional limestone boulders. Some admixed sandy silts and clay fragments.
665-675	Ditto with a few more boulders.
675-700	Sandstone and variegated sandstone and silt fragments and a few boulders.

<u>Feet</u>	Formation
700-730	Grey and white, maroon sandy clay and silt.
730-760	Reddish clays and sandy silts and some admixed clayey argillaceous
,00 ,00	material.
760-795	Sandstone with occasional boulders and prominent limestone boulder
,00 ,00	fragments between 790'-and 795'.
795-8 20	Maroon and grey and cream sandy siltstone and claystone with occasional
	boulder fragments.
820-870	Vari-colored clays, sandy silts, silty sands containing admixed boulders.
870-900	Sandstone, with admixed vari-colored clays, silts and scattered boulders.
900-915	Clay and silt, very sandy. Maroon, grey, white and cream colored.
915-940	Vari-colored clay and silt, pinkish cast.
940-970	Sandstone with grey and white claystone or siltstone admixed.
970-1015	Sandy claystone or siltstone, vari-colored with limestone boulders.
1015-1055	Sandstone. Some admixed vari-colored sandy clay and occasional
	fragments of crystalline limestone.
1055-1085	Sandstone and vari-colored sandy clay and sandy silt.
1085-1165	Claystone or siltstone, very sandy, occasional limestone fragments.
1165-1205	Sandstone with occasional boulders.
1205-1230	Basal Duchesne River conglomerate. Limestone and quartzite boulders
	set in a sandy matrix. Very hard.
<u>1230</u>	Base Duchesne River formation to Uinta formation.
1230-1250	Vari-colored claystone with occasional limestone boulders.
1250-1275	Sandstone with admixed vari-colored claystone and siltstone.
1275-1290	Sandstone and vari-colored siltstone and claystone.
1290-1345	Sandstone with intercalations of clay and silt. Prominent pyrite
1245 1202 5	crystals noted along with scattered boulders.
1345-1383.5	Vari-colored sandy claystone and scattered boulders.
1383.5-1393.5	Vari-colored sandy claystone and siltstone with maroon, drab
	brown and light blue-grey silts and sandy silt, fragments
1393.5-1400	predominating. Vari-colored clays and silts.
1400-1410	Sandstone with admixed vari-colored clays and silts.
1410-1425	Vari-colored clays and sandy silts with very occasional boulders.
1425-1440	Predominantly sandstone with admixed vari-colored clays and sandy
1420 1140	silts. Blue-grey silts predominating.
1440-1455	Red, blue, tan and dirty brown clays and silts and sandy silts.
1455-1470	Sandstone with admixed vari-colored clays and silts.
1470-1500	Predominantly vari-colored clays and silts with some admixed
	sandstone.
	First dark grey chert grains appear at 1,490'.
1500-1530	Predominantly sandstone with admixed vari-colored clays and
	silts. No cuts.
1530-1585	Vari-colored clays and silts and some blue-grey chert fragments.
	First prominent appearance of grey chert material at 1,530.
	This point also marks the appearance of a few tar coated lime-
	stone grains. The samples give a faint cut in carbon tetrach-
	loride between 1,530' and 1,540'. No cuts from 1,540' to 1,585'.

<u>Feet</u>	<u>Formation</u>
<u>1585</u> -1630	Sandstone with some admixed chert conglomerate and vari-colored clays. Pyrite grains noticeable. No cut to 1,615' and a very faint cut between 1,615' and 1,630'. At 1,630' the first time that a considerable admixture of tar staineds and grains showed on the ditch.
1630-1730	Tan sand with some tar sand. All samples down to 1,700' showing fair cut. Some vari-colored silt fragments.
1730-1755	Hard grey chert conglomerate and sand.
1755-1800	Grey chert and limestone boulder conglomerate set in a sandy matrix. Faint oil cut 1,755' to 1,770'. Good cut 1,770' to 1,800'.
1800-1850	Sandstone, tar sandstone and scattered boulders. Faint cuts throughout.
1850-1908	Black tar sand and grey chert pebble conglomerate. Cored 38' of tar sand and gas burned in the barrel at 1,885'.
1908-1940	Sandstone and chert pebble conglomerate. All samples gave good cuts so it is probably tar saturated.
1940-1968	Sandstone with some admixed vari-colored clays. Samples give cut throughout.
1968-2035	Conglomerate set in a sandstone matrix and some admixed vari- colored argillaceous material.
2035	Approximate top of the Cretaceous-Mesaverde sands and shales.
2035-2045	Sandstone?
2045-2093	Grey Cretaceous shales, lignitic shales and some thin streaks of coal with shiny lustre. Irregularly bedded.
2093-2218	Mesaverde oil sands, light brown, medium grained, fairly soft, massive. Give excellent cut. No odor.

T.D. 2,222 ft.

JAH GEOLOGICAL SURVEY 103 CIVIL ENGINEERING BLDG. UNIVERSITY OF UTAH SALT LAKE CITY 12, UTAH

4.1.6.24

UNION OIL COMPANY - Government No. 1

UNITOH Co.

Cottonwood Springs Bow, Mintah County, Utah location: 1,650' from South line and 330' from Fast Line of Sec. Utoh 21. T45. R20E. S.L.M.

Elevation: 5,275'

April 19, 1942. Abandoned: June 12, 1942. Spud:

T. D. 2,222 ft.

Casing record: 8-5/8--140 ft. 5-1/2--2,082 14.

Well tog Assembled from Examination of Drill Cuttings by Max L. Krueger.

Peat	Formation
c - 25	Tan sandy clay and occasional boulders.
a5 -7 0	Clay and boulders.
70-105	Hard boulder conglomerate.
105-120	Hard quarts sand.
120-130	Eard sand with limestone boulder fragments.
13 -160	Hard boulder conglomerate.
1 <u>_</u> 00	Sandstone with occasional boulders.
200-215	Pink sandy clay with scattered boulders.
215-225	Grey and white sandstone.
225-045	Grey and maroon clay and sandy silt with a few boulders.
245-275	Grey clay, sandy silt and silty sand.
275-280	Medium grained sandstone.
280-315	Clay, sendy white to tawny
315-355	Clayey silt and sandy silt, maroon to pink to tawny, gypsiferous.
355-365	Clayey sandstone.
365_430	Soft sandy clay decreasing in sandiness downward.
430_435	Sandstone, tan.
455-460	Sandy grey clay.
460_470	Sandstone with some sandy clay and occasional boulders, pyrite orystals set in lines one fragments.
47c-535	Cypelferous clay, sandy red and pink.
535-550	Sandatone.

Para	2
F 48 (1.17)	_

UTAH GEOLOGICAL SURVEY
103 CIVIL ENGINEERING BLDG.
UNIVERSITY OF UTAH
SALT LAKE CITY 12 LITAH

<u> 2001</u>	Towns #4 or	RSITY OF UTAH LAKE CITY 12, UTAH
55> <u>-</u> 565	Sandy clays and sandy silts, colcareous to gypsiferous. Range in color from pink and red to maroon to white, light grey, tans and tawny colors. The maroon intervals are more clayey and softer while the grey colored sediments are much sendier.	
565-575	Sand, tan, fairly hard.	
575-620	Variegated clays, silts and sand.	
620-640	Sandstone with admixed clays and sandy silt	ts on occasion.
640-665	Tan sandstone and occasional limestone boulders. Some admixed sandy silts and clay fragments.	
665-675	Ditto with a few more boulders.	
675-700 —	Sandstone and variegated sandstone and silt fragments and a fewbboulders.	
700-730	Grey and white, marcon sandy clay and silt.	
730-760	Reddish clays and sandy silts and some admi	ixed clayey argillaceous material
760-795	Sandstone with occasional boulders and prominent limestone boulder fragments between 790'- and 795'.	
795-820	Marcon and grey and cream sandy siltstone and claystone with occasional boulder fragments.	
820-870	Vari-colored clays, sandy silts, silty san	ds containing admixed boulders.
870-900	Sandstone, with admixed vari-colored clays, silts and scattered boulders.	
900-915	Clay and silt, very sandy. Maroon, grey,	white and cream colored.
915-940	Vari-colored clay and silt, pinkish cast.	
940-970	Sandstone with grey and white claystone or siltstone admixed.	
970-1015	Sandy claystone or siltstone, wari-colored	with limestone boulders.
1015-1055	Sandstone. Some admixed vari-colored sandy clay and occasional fragments of crystalline limestone.	
1055-1085	Sandstone and vari-colored sandy clay and	sandy silt.
1085-1165	Claystone or siltstone, very sandy, occasional limestone fragments.	
1165-1205	Sandstone with occasional boulders.	
1205-1230	Basal Duchesne River conglomerate. Linest set in a sandy matrix. Very hard.	one and quartzite boulders
1230	Base Duchesne River formation to Uinta fo	rmation.
1230-1250	Vari-colored claystone with eccasional lim	estone boulders.

Sandstone with admixed vari-colored elaystone and siltstone.

1250-1275

UTAH GEOLOGICAL SURVEY
103 CIVIL ENGINEERING BLDG.
UNIVERSITY OF UTAH
SALT LAKE CITY 12 LITAH

Fent	Formetion	SALT LAKE CITY 12, UTAH
1275-1290	Sandstone and vari-colored siltstone and claystone.	
1290-1345	Sandstone with intercalations of clay and silt. Prominent pyrite crystals noted along with scattered boulders.	
1345-1383.5	Vari-colored sandy claystone and scattered boulders.	
1383.5-1393.5	Vari-colored sandy claystone and siltstone with marcon, drab brown and light blue-grey silts and sandy silt, fragments predominating.	
1303.5-1400	Vari-colored clays and silts.	
1400-1410	Sandstone with admixed vari-colored clays and silts.	
1410-1425	Vari-colored clays and sandy silts with very occasional boulders.	
1425-1440	Predominantly sandstone with admixed vari-colored clays and sandy silts. Blue-gray silts predominating.	
1440-1455	Red, blue, tan and dirty brown clays and silts and sandy silts.	
1455-1470	Sandstone with admixed wari-colored	olays and silts.
1470-1500	Predominently vari-colored clays and sandstone. First dark grey chert grains appear	
1500-1530	Predominantly sandstone with admixed wari-colored clays and silts. No cuts.	
1530 -1585	Vari-colored clays and silts and som First prominent appearance of grey of This point also marks the appearance stone grains. The samples give a followide between 1,530° and 1,540°. I 1,585°.	chert material at 1,530 of a few tar coated lime- int cut in carbon tetrach-
<u>1585</u> _1630	Sandstone with some admixed chert coclays. Pyrite grains noticeable. I faint cut between 1,515' and 1,550', that a considerable admixture of taxon the ditch.	To cut to 1,615' and a very
1630 –1730	Tan sand with some tar sand. All samples down to 1,700° showing fair cut. Some vari-colored silt fragments.	
1730-1755	Hard grey chert conglomerate and sand.	
1755-1800	Grey chart and limestone boulder commatrix. Faint oil on 1,755 to 1,71,800.	nglomerate set in a sandy 170°., Good cut 1,770° to

1800-1850 Sandstone, tar sandstone and scattered boulders. Faint outs throughout.

Page 4	UTAH GEOLOGICAL SURVEY	
Formation	103 CIVIL ENGINEERING BLDG. UNIVERSITY OF UTAH SALT LAKE CITY, 12, UTAH	
Black tar sand and grey chert pebble conglomerate. Cored 38' of tar sand and gas burned in the barrel at 1,885'.		
Sandstone and chert peoble conglogood cuts so it is probably tar s		
Sandstone with some admixed vari- give cut throughout.	colored clays. Samples	
Conglomerate set in a sandstone m colored argillaceous material.	strix and some admixed vari-	
Approximate top of the Cretaceous	-Hosaverde sands and shales.	

1968-2035

1940-1968

1850-1968

1908-1940

2035

10 t

Approximate top of the Cretaceous

2035-2045

Sandstone?

2045-2093

Oray Cretadeous shales, lignitic shales and some thin streaks of coal with shipy lustre. Irregularly bedded.

2093-2218

Mesaverde oil sands, light brown, medium grained, fairly soft, massive. Give excellent cut. No odor.

T.D. 2, 222 ft.

STATE Union Oil Co. Govmnt. No. 1 WELL NO. COUNTY FARM BLOCK SURVEY 43-047-2037 SEC. TOTAL DEPTH T. 45 R. 20E COMMENCED Apr. 19, 1942 COMPLETED June 12, REMARKS ALTITUDE PRODUCTION CASING RECORD 8-5/8 -2.082 BETWEEN SHOT QUARTS FORM 186 - In stock and for sale by Ross-Martin Co., Tulsa 🛠 Tan say cly & occ. bldrs Cly. & bldrs. Hd. bldr. cong. 901 Hd. qtz. sd. Hd. sd/16 bldr frags 130 Hd bldr cong 160 Ss. / occ bldrs 200 Pk sdy cly / scot bldrs Gy & wh ss 215 by & mar cly & sdy sit /a fer 245 by cly, sdy slt & slty sd 538 m gr ss 300 Cly sit & say sit, 355 365 Cly ss **4**00 430 435 Ss, tan Sdy gy cly 460 Ss / some say cly & occ bi in 1s frags. 500 Js

Say clys & say sits, calc to gyp. Range in cal from px & red tomar to wh, it gry, tans & towny cols. The mar intro are more cly? & ster while the gry coled sads, are much sayer. 535 Sd, tan, fairly hd. 800 620 Ss / admixed clys & Edy slis on 640 Tan SS & occ 1s blars. So Sits & cly frags. Do /a few more blars 665 Ss & vgt ss & slt frag & a few bldrs 8 Gy & wh, mat soly cly & sit. 730 Reddish clys & say sits & some cly arg mat. 760 Ss / occ bldrs & prom 1s. bldr frags between 790' - and 795' 8 Mar & gy & bidr frags. 820 Vcol clys, say sits, sity 870 900 sdy. Mar, gy, wh Vool cly & sit , phish 940 Sslgy & wh clyst or slest admixed Suly clyst or slest, veel / Is blars 1000 1015 Ss. Some admixed vool say cly frag of xl 1s Ss & vool sdy oly & sdy sle 1085 1100 1165 Ss / oco bldrs 1200 Bonal Duchesne River cgl. Ls & gest blars set in say mex. V hd. Duchesne River formati to Vinta formation Vcol clyst/oco is bldrs admired veol elyst & siltst 1275 Ss & vcol slest & 1290 1300 55 / intercolations of cly & sit. X15 noted along / scat bldrs Vcol sdy clyst & scat bldrs. Veol soly clyst & slest / mar, drab, brn & lt bl-gy sits & soly sit, frag pred 1400 5s / admixed vool clys & Vcol clys & slts / v oc Pred Ss fada Ste pred. Red, bl, tan & dirty brn clys & site & sdy Ss/admixed vool elys & slts Pred vool clys & sits / some admixed 53. First dk gy cht grains appear at 1,490' 1500 ss/admixed vool clys & stes. No Yeal clys & sits & some blogy the frags. First prome appearance of gy the mat @ 1,530. Appearance of a few top coated is grs. Sple give a finite cet in Colly between 1,530 & 1,540. No outs from 1,540 to 1,545. 1600 1630 . Tan sol / some tar sol. All spis don showing fair cut. Some vool sit frag 1700 1730 Ha gy cht cgl & sd. Gy cht & 15 bldr egl set in a sdy mtx. Fa oil cut 1,755' to 1,770'. G cut 1,770' to 1,800 800 1850 Bik tar sd & gy chty pbl cgl. Cored 38 of tar sd & gas burned in the barrel of 1,885. 1900 So & cht pbl cgl. All spls gave g so it is probably tar saturated Ss / some admixed vool clys. Spls give out throughout. Cal set in a 53 mtx & some admixed 2000 2035 2200 2218 T.D 2300 2400 Cly or -sit or sites oil, asphalt I seams 2500 2600 2700 2800 2900